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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,853	10/10/2001	Neville J. Anthony	· 20757Y	7109
210 7	7590 07/14/2003			
MERCK AND CO INC P O BOX 2000 RAHWAY, NJ 070650907			EXAMINER	
			COLEMAN, BRENDA LIBBY	
		•	ART UNIT	PAPER NUMBER
			1624	, ,,
			DATE MAILED: 07/14/2003	12

Please find below and/or attached an Office communication concerning this application or proceeding.

1		Application No.	Applicant(s)			
		09/973,853	ANTHONY ET AL.			
Office Action Summary		Examiner	Art Unit			
		Brenda L. Coleman	1624			
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover she	et with th correspond nc address			
THE I - Exter after - If the - If NO - Failu - Any r	ORTENED STATUTORY PERIOD FOR REPL'MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. Period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period to reply within the set or extended period for reply will, by statute eply received by the Office later than three months after the mailing digital patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, r y within the statutory minimum vill apply and will expire SIX (6 , cause the application to beco	nay a reply be timely filed of thirty (30) days will be considered timely.) MONTHS from the mailing date of this communication. me ABANDONED (35 U.S.C. § 133).			
1) 🗌	Responsive to communication(s) filed on					
2a)	This action is FINAL . 2b)⊠ Th	is action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims						
4) 🖾	Claim(s) 1-36 is/are pending in the application	1.				
4a) Of the above claim(s) is/are withdrawn from consideration.						
5)	5) Claim(s) is/are allowed.					
6)	6) Claim(s) is/are rejected.					
7)	Claim(s) is/are objected to.					
8)⊠	8) Claim(s) 1-36 are subject to restriction and/or election requirement.					
Applicati	on Papers					
9) 🗌 🤈	The specification is objected to by the Examine	r.				
10) 🗌 -	10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.					
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
11) 🔲 -	11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.					
If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a)[a) ☐ All b) ☐ Some * c) ☐ None of:					
	1. Certified copies of the priority documents have been received.					
	2. Certified copies of the priority documents have been received in Application No					
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
	cknowledgment is made of a claim for domesti	•				
-) The translation of the foreign language pro	•				
	Acknowledgment is made of a claim for domest					
Attachment	•		•			
2) Notic	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449) Paper No(s) _	5) 🔲 Noti	view Summary (PTO-413) Paper No(s) ce of Informal Patent Application (PTO-152) r:			
D.S. Patent and Tr PTO-326 (Re		tion Summary	Part of Paper No. 12			

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DETAILED ACTION

Claims 1-36 are pending in the application.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15, 21-27 and 30-32, drawn to compounds, compositions and method of use where the compounds of formula I where X, Y, Z¹, Z² and Z³ are such that they form a 1,6-naphthyridine ring, classified in class 546, subclass 123 and class 514, subclass 300.
- II. Claims 1, 4, 25-27 and 30-32, drawn to compounds, compositions and method of use of the compounds of formula I where X, Y, Z¹, Z² and Z³ are such that they form a pyridopyrazine ring, classified in class 544, subclass 350 and class, 514, subclass 249.
- III. Claims 1, 16-21, 25-27 and 30-32, drawn to compounds, compositions and method of use of the compounds of formula I where X, Y, Z¹, Z² and Z³ are such that they form a pyrimido-1,6-naphthyridine ring, classified in class 544, subclass 251 and class, 514, subclass 257.
- IV. Claims 1 and 35-36, drawn to compounds, compositions and method of use of the compounds of formula I where X, Y, Z¹, Z² and Z³ are such that they form a quinoline ring, classified in class 546, subclass 169 and class, 514, subclass 314.

V. Claims 28, 29, 33 and 34, drawn to complex compositions where the compounds of formula I are administered in combination with an additional active ingredient, classified in class 514, various subclasses within.

VI. Claims 1, 25-27 and 30-32, drawn to compounds, compositions and method of use of the compounds of formula I where X, Y, Z¹, Z² and Z³ are such that they form a ring not positively described above, classified in classes 544 and 546, various subclasses within.

The inventions are distinct, each from the other because of the following reasons:

Groups I-VI are directed to structurally dissimilar compounds such that the variable core created by the varying definitions of X, Y, Z¹, Z² and Z³ in formula I do not belong to a recognized class of chemical compounds in the art, and references anticipating one invention, would not render obvious the others, for example 1,6-naphthyridine is different from pyridopyrazine, pyrimido-1,6-naphthyridine, quinoline, etc. Thus, separate searches in the literature as well as in the U.S. Patent Classification System would be required. Each group's compounds are made and used independently of each other and could support separate patents. The compounds differ significantly in chemical structures. One skilled in the art would not consider such diverse structures as functional equivalents of each other. The mere fact that there is a single similarity is not in itself a significant reason to render the whole embodiment obvious.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

If applicants elect Groups V or VI, further restriction may be required.

Tentative election of a single species within the elected group is further required.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda L. Coleman whose telephone number is 703-305-1880. The examiner can normally be reached on 8:30-5:00 Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mukund Shah can be reached on 703-308-4716. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

Brenda Coleman

Primary Examiner Art Unit 1624

July 11, 2003